Amendment to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-6 (Canceled)

7. (Withdrawn) A method to determine whether a high plasma cholesterol level in a host is due to a genetic alteration of the host's apoB-100 protein comprising administering a LDL clearance enhancing drug to the patient, observing a lower than normal decrease in plasma cholesterol level, and then isolating and evaluating the host's apoB-100 protein.

8. (Withdrawn) A method to determine whether a high plasma cholesterol level in a host is due to a genetic alteration of the host's apoB-100 protein comprising exposing the host's apoB-100 protein to an LDL clearance enhancing drug in vitro under conditions in which the host's apoB-100 protein and the drug can form a complex, and then isolating and evaluating the change in conformation of the host 's apoB-100 protein caused by any complexation.

9. (Currently Amended) A method to determine if a compound causes a change in the structure of apolipoprotein B-100 in a cholesterol-containing low density lipoprotein thus increasing the binding of an epitope on the apolipoprotein B-100 to the LDL-receptor, comprising:

(i) mixing the compound with and allowing it to bind to cholesterol-containing low density lipoprotein forming a complex;

(ii) exposing the complex to a first capture antibody that is attached to a solid phase material and is directed to the epitope on apolipoprotein B-100 that binds to the LDL-receptor, forming a combination;

(iii) using a second antibody which binds to the combination;

(iv) detecting the second antibody bound to the combination by the addition of a third antibody to which is attached a label and binds the second antibody;

(v) quantifying the amount of the captured complex by quantifying the amount of label ; and

(vi) comparing the amount of cholesterol-containing low density lipoprotein captured by the assay to a control, wherein an increase in the amount of cholesterol-containing low density lipoprotein captured indicates an increased binding to the low density lipoprotein receptor.

10. (canceled)

11. (Withdrawn) A method for lowering plasma cholesterol in a host comprising administering an effective amount of a compound that binds to cholesterol-carrying lipoprotein in a manner that alters the three dimensional configuration of the lipoprotein and increases the binding affinity of the apoB-100 protein to the LDL receptor; wherein the LDL-clearance enhancing drug is not probucol or a mono- or di-ester of probucol, not a compound described in WO 98/09773, and not a silyl compound described in U.S. Patent Nos. 5,155,250 or 5,608,095.

12. (Withdrawn) The method of claim 11, wherein the LDL receptor is on the surface of hepatic cells.

13. (Withdrawn) The method of claim 11, wherein the cholesterol-carrying liproprotein is LDL.

14. (Withdrawn) The method of claim 11, wherein the cholesterol-carrying liproprotein is VLDL.

3 15. (Previously presented) A method for assessing whether a compound first binds to a cholesterol-containing lipoprotein, enhancing the binding of the cholesterol-containing lipoprotein to a low density lipoprotein hepatic receptor and thus lowering plasma cholesterol, the method comprising:

(a) allowing the compound to form a complex with a cholesterol-containing lipoprotein in vivo,

(b) isolating the resulting complex, and

(c) determining whether the formation of the complex causes a change in the three dimensional conformation of apoB-100 in the cholesterol-containing lipoprotein that enhances the binding of the lipoprotein to the LDL hepatic receptor.

16. (Withdrawn) A method for lowering plasma cholesterol in a host comprising administering an effective amount of a compound that binds to cholesterol-carrying lipoprotein in a manner that alters the three dimensional configuration of the lipoprotein and increases the binding affinity of the apoB-100 protein to the LDL receptor in combination or alternation with a second drug that lowers cholesterol via a different biological pathway; wherein the LDL-clearance enhancing drug is not probucol or a mono- or di-ester of probucol, not a compound described in WO 98/09773, and not a silyl compound described in U.S. Patent Nos. 5,155,250 or 5,608,095.

17. (Withdrawn) The method of claim 16, wherein the LDL receptor is on the surface of hepatic cells.

18. (Withdrawn) The method of claim 16, wherein the cholesterol-carrying liproprotein is LDL.

19. (Withdrawn) The method of claim 16, wherein the cholesterol-carrying liproprotein is VLDL.

20. (Withdrawn) The method of claim 16, wherein the second drug is selected from the group consisting of a statin, a bile acid sequestrant, nicotinic acid, probucol, a fibrate derivative, Neomycin, and cholestyramine.

21. (canceled)

22-28. (canceled)

29. (Previously presented) The method of claim 1, wherein the control is low density lipoprotein in the absence of test compound.

30. (canceled)

31. (Previously presented) The method of claim 3, wherein the formation of the complex is determined by a sandwich immunoreactivity assay.

32. (Previously presented) The method of claim 3, wherein the formation of the complex is determined using agarose electrophoresis.

33-34. (Canceled)

35. (Previously presented) The method of claim 3, wherein the cholesterol-containing low-density lipoprotein is LDL.

36. (Previously presented) The method of claim 3, wherein the cholesterol-containing low-density lipoprotein is VLDL.

37. (Withdrawn) A method for assessing whether a compound enhances the uptake and clearance of a cholesterol-containing low density lipoprotein comprising:

i) allowing the compound to form a complex with a labeled cholesterol-containing lipoprotein;

ii) isolating the complex;

iii) allowing the complex to incubate with a cell culture;

iv) measuring the uptake of the labeled cholesterol containing lipoprotein into the cells.

38. (Withdrawn) The method of claim 37, wherein the cell culture is composed of hepatic cells.

39. (Withdrawn) The method of claim 37, wherein the uptake of labeled cholesterol containing lipoprotein is determined in the presence of an excess amount of unlabeled cholesterol-containing lipoprotein.

8 40. (Currently Amended) A method to determine if a compound causes a change in the structure of apolipoprotein B-100 in a cholesterol-containing low density lipoprotein thus increasing the binding of an epitope on the apolipoprotein B-100 to an LDL-receptor, comprising:

(i) mixing the compound with and allowing it to bind to cholesterol-containing low density lipoprotein forming a complex;

(ii) exposing the complex to a first capture antibody that is attached to a solid phase material and is directed to the epitope on apolipoprotein B-100 that binds to the LDL-receptor, forming a combination;

(iii) adding to the combination a second antibody to which is attached a label and binds the combination;

(iv) quantifying the amount of the captured complex by quantifying the amount of label; and

(v) comparing the amount of cholesterol-containing low density lipoprotein quantified in step (iv) to a control, wherein an increase in the amount of cholesterol-containing low density lipoprotein captured indicates an increased binding to the low density lipoprotein receptor.

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9 41. (Previously presented) The method of claim 40, wherein the control is low density lipoprotein in the absence of test compound.